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RAW SEQUENCE LISTING   DATE: 06/22/2001
PATENT APPLICATION: US/09/674,330A   TIME: 12:11:11

Input Set : **A:\ES.txt**
Output Set: **N:\CRF3\06222001\I674330A.raw**

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   3  <110> APPLICANT: Ono Pharmaceutical Co., Ltd.
   5  <120> TITLE OF INVENTION: A NOVEL POLYPEPTIDE, A CDNA ENCODING THE POLYPEPTIDE AND
UTILIZATION
   6        THEREOF
   8  <130> FILE REFERENCE: Q61536
  10  <140> CURRENT APPLICATION NUMBER: 09/674,330A
  11  <141> CURRENT FILING DATE: 2000-10-30
  13  <150> PRIOR APPLICATION NUMBER: JP 10-119731
  14  <151> PRIOR FILING DATE: 1998-04-28
  16  <150> PRIOR APPLICATION NUMBER: PCT/JP99/02283
  17  <151> PRIOR FILING DATE: 1999-04-28
  19  <160> NUMBER OF SEQ ID NOS: 12
  21  <170> SOFTWARE: PatentIn version 3.0
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  24  <211> LENGTH: 1344
  25  <212> TYPE: DNA
  26  <213> ORGANISM: Mus musculus
  28  <400> SEQUENCE: 1
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  31  gagaatgcac agcagcagtg cacaaacggc tttgacctgg acggccagtc aggacagtgt      120
  33  ctagatattg atgaatgccg gaccatccct gaggcttgtc gtggggacat gatgtgtgtc      180
  35  aaccagaatg gggggtattt gtgcatccct cgaaccaacc cagtgtatcg agggccttac      240
  37  tcaaatccct actctacatc ctactcaggc ccatacccag cagcggcccc accagtacca      300
  39  gcttccaact accccacgat ttcaaggcct cttgtctgcc gctttgggta tcagatggat      360
  41  gaaggcaacc agtgtgtgga tgtggacgag tgtgcaacag actcacacca gtgcaaccct      420
  43  accagatct gtatcaacac tgaaggaggt tacacctgct cctgcaccga tggtactgg      480
  45  cttctggaag ggcagtgcct agatattgat gaatgtcgct atggttactg ccagcagctc      540
  47  tgtcaaatg ttccaggatc ctattcctgt acatgcaacc ctggtttcac cctcaacgac      600
  49  gatgaaggt cttgccaaga tgtgaacgag tgcgaaactg agaatccctg tgttcagacc      660
  51  tgtgtcaaca cctatggctc tttcatctgc cgctgtgacc caggatatga acttgaggaa      720
  53  gatggcattc actgcagtga tatggacgag tgcagcttct ccgagttcct ctgtcaacac      780
  55  gagtgtgtga accagccggg ctcatacttc tgctcgtgcc ctccaggcta cgtcctgttg      840
  57  gatgataacc gaagctgcca ggatatcaat gaatgtgagc accgaaacca cacgtgtacc      900
  59  tcactgcaaa cttgctacaa tctacaaggg ggcttcaaat gtattgatcc catcagctgt      960
  61  gaggagcctt atctgctgat tggtgaaaac cgctgtatgt gtcctgctga gcacaccagc     1020
  63  tgcagagacc agccattcac catcctgtat cgggacatgg atgtggtgtc aggacgctcc     1080
  65  gttcctgctg acatcttcca gatgcaagca acaacccgat accctggtgc ctattacatt     1140
  67  ttccagatca aatctggcaa cgaggtgtcga gagttctata tgcggcaaac agggcctatc     1200
  69  agtgccacc tggtgatgac acgccccatc aaagggcctc gggacatcca gctggacttg     1260
  71  gagatgatca ctgtcaacac tgtcatcaac ttcagaggca gctccgtgat ccgactgcgg     1320
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  78  <212> TYPE: DNA
  79  <213> ORGANISM: Mus musculus
  81  <220> FEATURE:
  82  <221> NAME/KEY: misc_feature
  83  <223> OTHER INFORMATION: Clone mouse A55 derived from Day 13 mouse embryonic heart
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87  <221> NAME/KEY: misc_feature
88  <223> OTHER INFORMATION: "n" may be either a, c, g or t
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92  <221> NAME/KEY: CDS
93  <222> LOCATION: (75)..(1418)
95  <220> FEATURE:
96  <221> NAME/KEY: sig_peptide
97  <222> LOCATION: (75)..(143)
99  <220> FEATURE:
100 <221> NAME/KEY: mat_peptide
101 <222> LOCATION: (144)..()
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104 aattggcac gagccccagt cccaccgcag agcctgcctt cctcgcgtcg cttctcctcc        60
106 cgcgcatctt ggat atg cca gga tta aaa agg ata ctc act gtt acc atc       110
107                 Met Pro Gly Leu Lys Arg Ile Leu Thr Val Thr Ile
108                         -20                     -15
110 ttg gca ctc tgg ctt cca cat cct ggg aat gca cag cag cag tgc aca       158
111 Leu Ala Leu Trp Leu Pro His Pro Gly Asn Ala Gln Gln Gln Cys Thr
112     -10             -5              -1 1                   5
114 aac ggc ttt gac ctg gac cgc cag tca gga cag tgt cta gat att gat       206
115 Asn Gly Phe Asp Leu Asp Arg Gln Ser Gly Gln Cys Leu Asp Ile Asp
116                 10              15                  20
118 gaa tgc cgg acc atc cct gag gct tgt cgt ggg gac atg atg tgt gtc       254
119 Glu Cys Arg Thr Ile Pro Glu Ala Cys Arg Gly Asp Met Met Cys Val
120         25              30                  35
122 aac cag aat ggc ggg tat ttg tgc atc cct cga acc aac cca gtg tat       302
123 Asn Gln Asn Gly Gly Tyr Leu Cys Ile Pro Arg Thr Asn Pro Val Tyr
124         40              45                  50
126 cga ggg cct tac tca aat ccc tac tct aca tcc tac tca ggc cca tac       350
127 Arg Gly Pro Tyr Ser Asn Pro Tyr Ser Thr Ser Tyr Ser Gly Pro Tyr
128     55              60                  65
130 cca gca gcg gcc cca cca gta cca gct tcc aac tac ccc acg att tca       398
131 Pro Ala Ala Ala Pro Pro Val Pro Ala Ser Asn Tyr Pro Thr Ile Ser
132 70                  75                  80                      85
134 agg cct ctt gtc tgc cgc ttt ggg tat cag atg gat gaa ggc aac cag       446
135 Arg Pro Leu Val Cys Arg Phe Gly Tyr Gln Met Asp Glu Gly Asn Gln
136                 90                  95                  100
138 tgt gtg gat gtg gac gag tgt gca aca gac tca cac cag tgc aac cct       494
139 Cys Val Asp Val Asp Glu Cys Ala Thr Asp Ser His Gln Cys Asn Pro
140                 105                 110                 115
142 acc cag atc tgt atc aac act gaa gga ggt tac acc tgc tcc tgc acc       542
143 Thr Gln Ile Cys Ile Asn Thr Glu Gly Gly Tyr Thr Cys Ser Cys Thr
144         120                 125                 130
146 gat ggg tac tgg ctt ctg gaa ggg cag tgc cta gat att gat gaa tgt       590
147 Asp Gly Tyr Trp Leu Leu Glu Gly Gln Cys Leu Asp Ile Asp Glu Cys
148     135                 140                 145
150 cgc tat ggt tac tgc cag cag ctc tgt gca aat gtt cca gga tcc tat       638
151 Arg Tyr Gly Tyr Cys Gln Gln Leu Cys Ala Asn Val Pro Gly Ser Tyr
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         Input Set : A:\ES.txt
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152 150                 155                 160                 165
154 tcc tgt aca tgc aac cct ggt ttc acc ctc aac gac gat gga agg tct      686
155 Ser Cys Thr Cys Asn Pro Gly Phe Thr Leu Asn Asp Asp Gly Arg Ser
156         170                 175                 180
158 tgc caa gat gtg aac gag tgc gaa act gag aat ccc tgt gtt cag acc      734
159 Cys Gln Asp Val Asn Glu Cys Glu Thr Glu Asn Pro Cys Val Gln Thr
160         185                 190                 195
162 tgt gtc aac acc tat ggc tct ttc atc tgc cgc tgt gac cca gga tat      782
163 Cys Val Asn Thr Tyr Gly Ser Phe Ile Cys Arg Cys Asp Pro Gly Tyr
164         200                 205                 210
166 gaa ctt gag gaa gat ggc att cac tgc agt gat atg gac gag tgc agc      830
167 Glu Leu Glu Glu Asp Gly Ile His Cys Ser Asp Met Asp Glu Cys Ser
168         215                 220                 225
170 ttc tcc gag ttc ctc tgt caa cac gag tgt gtg aac cag ccg ggc tca      878
171 Phe Ser Glu Phe Leu Cys Gln His Glu Cys Val Asn Gln Pro Gly Ser
172 230                 235                 240                 245
174 tac ttc tgc tcg tgc cct cca ggc tac gtc ctg ttg gat gat aac cga      926
175 Tyr Phe Cys Ser Cys Pro Pro Gly Tyr Val Leu Leu Asp Asp Asn Arg
176         250                 255                 260
178 agc tgc cag gat atc aat gaa tgt gag cac cga aac cac acg tgt acc      974
179 Ser Cys Gln Asp Ile Asn Glu Cys Glu His Arg Asn His Thr Cys Thr
180         265                 270                 275
182 tca ctg cag act tgc tac aat cta caa ggg ggc ttc aaa tgt att gat      1022
183 Ser Leu Gln Thr Cys Tyr Asn Leu Gln Gly Gly Phe Lys Cys Ile Asp
184         280                 285                 290
186 ccc atc agc tgt gag gag cct tat ctg ctg att ggt gaa aac cgc tgt      1070
187 Pro Ile Ser Cys Glu Glu Pro Tyr Leu Leu Ile Gly Glu Asn Arg Cys
188         295                 300                 305
190 atg tgt cct gct gag cac acc agc tgc aga gac cag cca ttc acc atc      1118
191 Met Cys Pro Ala Glu His Thr Ser Cys Arg Asp Gln Pro Phe Thr Ile
192 310                 315                 320                 325
194 ctg tat cgg gac atg gat gtg gtg tca gga cgc tcc gtt cct gct gac      1166
195 Leu Tyr Arg Asp Met Asp Val Val Ser Gly Arg Ser Val Pro Ala Asp
196         330                 335                 340
198 atc ttc cag atg caa gca aca acc cga tac cct ggt gcc tat tac att      1214
199 Ile Phe Gln Met Gln Ala Thr Thr Arg Tyr Pro Gly Ala Tyr Tyr Ile
200         345                 350                 355
202 ttc cag atc aaa tct ggc aac gag ggt cga gag ttc tat atg cgg caa      1262
203 Phe Gln Ile Lys Ser Gly Asn Glu Gly Arg Glu Phe Tyr Met Arg Gln
204         360                 365                 370
206 aca ggg cct atc agt gcc acc ctg gtg atg aca cgc ccc atc aaa ggg      1310
207 Thr Gly Pro Ile Ser Ala Thr Leu Val Met Thr Arg Pro Ile Lys Gly
208 375                 380                 385
210 cct cgg gac atc cag ctg gac ttg gag atg atc act gtc aac act gtc      1358
211 Pro Arg Asp Ile Gln Leu Asp Leu Glu Met Ile Thr Val Asn Thr Val
212 390                 395                 400                 405
214 atc aac ttc aga ggc agc tcc gtg atc cga ctg cgg ata tat gtg tcg      1406
215 Ile Asn Phe Arg Gly Ser Ser Val Ile Arg Leu Arg Ile Tyr Val Ser
216         410                 415                 420
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Input Set : A:\ES.txt
Output Set: N:\CRF3\06222001\I674330A.raw

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 218 cag tat ccg ttc tgagcctctg gctaaggcct ctgacactgc ctttcaccag    1458
 219 Gln Tyr Pro Phe
 220              425
 222 caccgaggga cgggaggaga aaggaaacca gcaagaatga gagcgagaca gacattgcac    1518
 224 ctttcctgct gaatatctcc tggggcatc agcctagcat cttgacccat atctgtacta    1578
 226 ttgcagatgg tcactctgaa ggacaccctg ccctcagttc ctatgatgca gttatccaaa    1638
 228 agtgttcatc ttagccoctg atatgagttt gccagtgact cttcaaagcc ttccatttat    1698
 230 ttccatcgtt ttataaaaaa gaaaatagat tagatttgct gggtatgag tcctcgaagg    1758
 232 ttcaaaagac tgagtggctt gctctcacct cttcctctcc ttcctccatc tcttgctgca    1818
 234 ttgctgcttt gcaaaagtcc tcatgggctc gtggaaatg ctgggaatag ctagtttgct    1878
 236 tcttgcatgt tctgagaagg ctatgggaac acaccacagc aggatcgaag gtttttatag    1938
 238 agtctatttt aaaatcacat ctggtatttt cagcataaaa gaaattttag ttgtctttaa    1998
 240 aatttgtatg agtgtttaac cttttcttat tcattttgag gcttcttaaa gtggtagaat    2058
 242 tccttccaaa ggcctcagat acatgttatg ttcagtcttt ccaacctcat cctttcctgc    2118
W--> 244 atcttagccc agttttttacg aagacccctt aatcatgctt tnttaagagt ttttacccaa    2178
 246 ctgcgttgga agacagaggt atccagactg attaaataat tgaagaaaaa aaaaa    2233
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 250 <211> LENGTH: 448
 251 <212> TYPE: PRT
 252 <213> ORGANISM: Mus musculus
 254 <220> FEATURE:
 255 <221> NAME/KEY: misc_feature
 256 <223> OTHER INFORMATION: Clone mouse A55 derived from Day 13 mouse embryonic heart
 258 <400> SEQUENCE: 3
 260 Met Pro Gly Leu Lys Arg Ile Leu Thr Val Thr Ile Leu Ala Leu Trp
 261              -20              -15              -10
 264 Leu Pro His Pro Gly Asn Ala Gln Gln Gln Cys Thr Asn Gly Phe Asp
 265           -5             -1  1           5
 268 Leu Asp Arg Gln Ser Gly Gln Cys Leu Asp Ile Asp Glu Cys Arg Thr
 269 10              15              20              25
 272 Ile Pro Glu Ala Cys Arg Gly Asp Met Met Cys Val Asn Gln Asn Gly
 273              30              35              40
 276 Gly Tyr Leu Cys Ile Pro Arg Thr Asn Pro Val Tyr Arg Gly Pro Tyr
 277           45              50              55
 280 Ser Asn Pro Tyr Ser Thr Ser Tyr Ser Gly Pro Tyr Pro Ala Ala Ala
 281           60              65              70
 284 Pro Pro Val Pro Ala Ser Asn Tyr Pro Thr Ile Ser Arg Pro Leu Val
 285        75              80              85
 288 Cys Arg Phe Gly Tyr Gln Met Asp Glu Gly Asn Gln Cys Val Asp Val
 289 90              95              100             105
 292 Asp Glu Cys Ala Thr Asp Ser His Gln Cys Asn Pro Thr Gln Ile Cys
 293              110             115             120
 296 Ile Asn Thr Glu Gly Gly Tyr Thr Cys Ser Cys Thr Asp Gly Tyr Trp
 297              125             130             135
 300 Leu Leu Glu Gly Gln Cys Leu Asp Ile Asp Glu Cys Arg Tyr Gly Tyr
 301           140             145             150
 304 Cys Gln Gln Leu Cys Ala Asn Val Pro Gly Ser Tyr Ser Cys Thr Cys
 305        155             160             165
 308 Asn Pro Gly Phe Thr Leu Asn Asp Asp Gly Arg Ser Cys Gln Asp Val
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,330A

DATE: 06/22/2001
TIME: 12:11:11

Input Set : A:\ES.txt
Output Set: N:\CRF3\06222001\I674330A.raw

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309 170                     175                  180                  185
312 Asn Glu Cys Glu Thr Glu Asn Pro Cys Val Gln Thr Cys Val Asn Thr
313                     190                  195                  200
316 Tyr Gly Ser Phe Ile Cys Arg Cys Asp Pro Gly Tyr Glu Leu Glu Glu
317                 205                  210                  215
320 Asp Gly Ile His Cys Ser Asp Met Asp Glu Cys Ser Phe Ser Glu Phe
321             220                  225                  230
324 Leu Cys Gln His Glu Cys Val Asn Gln Pro Gly Ser Tyr Phe Cys Ser
325     235                  240                  245
328 Cys Pro Pro Gly Tyr Val Leu Leu Asp Asp Asn Arg Ser Cys Gln Asp
329 250                  255                  260                  265
332 Ile Asn Glu Cys Glu His Arg Asn His Thr Cys Thr Ser Leu Gln Thr
333                 270                  275                  280
336 Cys Tyr Asn Leu Gln Gly Gly Phe Lys Cys Ile Asp Pro Ile Ser Cys
337             285                  290                  295
340 Glu Glu Pro Tyr Leu Leu Ile Gly Glu Asn Arg Cys Met Cys Pro Ala
341         300                  305                  310
344 Glu His Thr Ser Cys Arg Asp Gln Pro Phe Thr Ile Leu Tyr Arg Asp
345     315                  320                  325
348 Met Asp Val Val Ser Gly Arg Ser Val Pro Ala Asp Ile Phe Gln Met
349 330                  335                  340                  345
352 Gln Ala Thr Thr Arg Tyr Pro Gly Ala Tyr Tyr Ile Phe Gln Ile Lys
353             350                  355                  360
356 Ser Gly Asn Glu Gly Arg Glu Phe Tyr Met Arg Gln Thr Gly Pro Ile
357             365                  370                  375
360 Ser Ala Thr Leu Val Met Thr Arg Pro Ile Lys Gly Pro Arg Asp Ile
361         380                  385                  390
364 Gln Leu Asp Leu Glu Met Ile Thr Val Asn Thr Val Ile Asn Phe Arg
365     395                  400                  405
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369 410                  415                  420                  425
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373 <211> LENGTH: 423
374 <212> TYPE  PRT
375 <213> ORGANISM: Mus musculus
377 <400> SEQUENCE: 4
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380 1                   5                   10                  15
382 Asp Ile Asp Glu Cys Arg Thr Ile Pro Glu Ala Cys Arg Gly Asp Met
383             20                  25                  30
385 Met Cys Val Asn Gln Asn Gly Gly Tyr Leu Cys Ile Pro Arg Thr Asn
386         35                  40                  45
388 Pro Val Tyr Arg Gly Pro Tyr Ser Asn Pro Tyr Ser Thr Ser Tyr Ser
389     50                  55                  60
391 Gly Pro Tyr Pro Ala Ala Ala Pro Pro Val Pro Ala Ser Asn Tyr Pro
392 65                  70                  75                  80
394 Thr Ile Ser Arg Pro Leu Val Cys Arg Phe Gly Tyr Gln Met Asp Glu
395             85                  90                  95
397 Gly Asn Gln Cys Val Asp Val Asp Glu Cys Ala Thr Asp Ser His Gln
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file: C:\CRF3\Outhold\VsrI674330A.htm

6.22.01

VERIFICATION SUMMARY   DATE: 06/22/2001
PATENT APPLICATION: **US/09/674,330A**   TIME: 12:11:12

Input Set : **A:\ES.txt**
Output Set: **N:\CRF3\06222001\I674330A.raw**

L:244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1029 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:11
L:1029 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11